

PFI Series

Flat type proximity sensor

■ Features

- Easy to mount in narrow space by flat structure(Height:10mm)
- Improved the noise resistance with dedicated IC(DC type)
- Built-in reverse polarity protection circuit, overcurrent protection circuit(DC type)
- Built-in surge protection circuit
- Red LED operation indicator
- Protection structure IP67(IEC standard)
- Replaceable for micro switches and limit switches




⚠ Please read "Caution for your safety" in operation manual before using.




■ Type

◎ DC 3-wire type

Appearance	Model
	PFI25-8DN
	PFI25-8DP
	PFI25-8DN2 ※
	PFI25-8DP2 ※

※ mark can be customized.

◎ AC 2-wire type

Appearance	Model
	PFI25-8AO
	PFI25-8AC

■ Specification

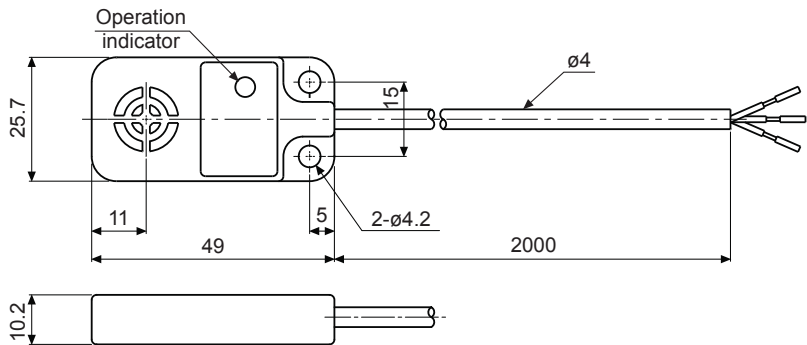
Model	PFI25-8DN PFI25-8DN2	PFI25-8DP PFI25-8DP2	PFI25-8AO PFI25-8AC
Sensing distance	8mm		
Hysteresis	Max. 10% of sensing distance		
Standard sensing target	25×25×1mm(Iron)		
Setting distance	0 to 5.6mm		
Power supply (Operating voltage)	12-24VDC (10-30VDC)		100-240VAC (85-264VAC)
Current/Leakage consumption	Max. 10mA		Max. 2.5mA
Response frequency※1	200Hz		20Hz
Residual voltage	Max. 1.5V		Max. 10V
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20℃		
Control output	Max. 200mA		5 to 150mA
Insulation resistance	Min. 50MΩ(at 500VDC megger)		
Dielectric strength	1,500VAC 50/60Hz for 1 minute		2,500VAC 50/60Hz for 1 minute
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours		
Shock	500m/s ² (50G) in each of X, Y, Z directions for 3 times		
Indicator	Operation indicator(red LED)		
Environ- ment	Ambient temperature	-25 to 70℃, storage : -30 to 80℃	
	Ambient humidity	35 to 95%RH, storage :35 to 95%RH	
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overload & Short protection circuit		Surge protection circuit
Cable	ø4, 3-wire, 2m (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: ø1.25mm)		ø4, 2-wire, 2m
Material	Case : PPS, General cable(Black) : Polyvinyl chloride(PVC)		
Protection	IP67(IEC standard)		
Approval	CE		
Unit weight	Approx. 70g		

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

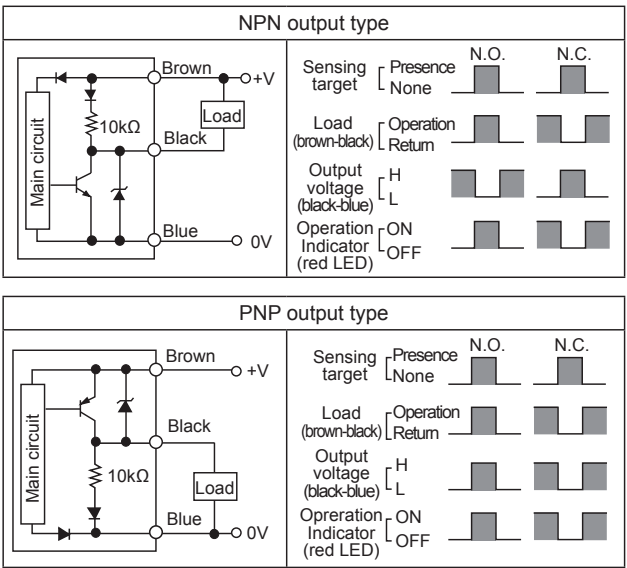
■ Dimensions

(unit: mm)

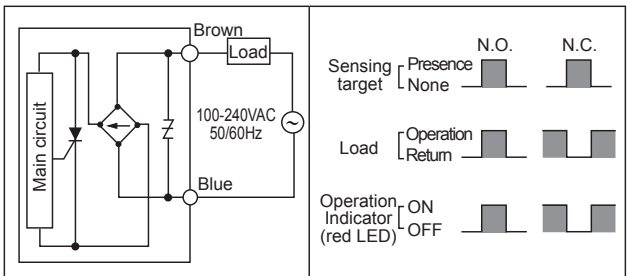


■ Control output diagram

◎ DC 3-wire type



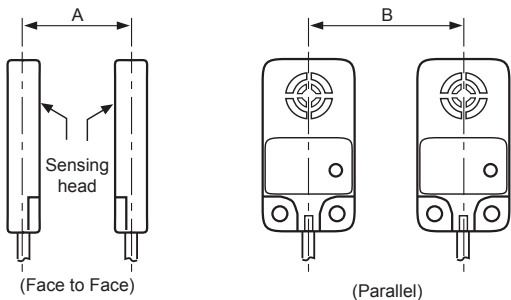
◎ AC 2-wire type



■ Proper usage

◎ Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.

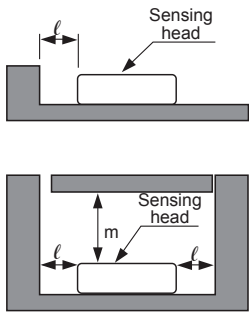


(unit: mm)

A	100
B	80

◎ Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as below chart indicates.



(unit: mm)

l	5
m	15

(A)	Photo electric sensor
(B)	Fiber optic sensor
(C)	Door/Area sensor
(D)	Proximity sensor
(E)	Pressure sensor
(F)	Rotary encoder
(G)	Connector/Socket
(H)	Temp. controller
(I)	SSR/Power controller
(J)	Counter
(K)	Timer
(L)	Panel meter
(M)	Tacho/Speed/ Pulse meter
(N)	Display unit
(O)	Sensor controller
(P)	Switching power supply
(Q)	Stepping motor& Driver&Controller
(R)	Graphic/Logic panel
(S)	Field network device
(T)	Software
(U)	Other